



(U) TAC's Target Development Services (TDS): In the Spotlight and Behind the Scenes

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(S//SI) The primary mission of the Target Analysis Center's Target Development Services (TDS) is to exploit communication services enabled by the Global Intelligent Network, including the impending convergence of circuit and packet switched networks. To see what else we do, see our [missions and functions](#).

(S//SI) Target Development Services is a familiar face to many SIGINT analysts here at NSA and around the world. Some of our more **visible** services include:

- **Knowledge Sharing** : Over 300 hours of formal training prepared and delivered to nearly 1,000 analysts in FY2003 exploring traffic analytic techniques and SIGINT exploitation of advanced communications technologies, in addition to non-NCS activities, such as the GEO BOOTCAMP and the standing-room-only monthly Personal Communications Systems (PCS) working group, and hosting GNA and IA intern tours to disseminate concrete skills to the product lines through personnel transfer;
- **Tools** : More than 15 operational prototypes serving over 4,000 analysts worldwide with tools such as the BANYAN for contact chaining, SPOTBEAM for INMARSAT analysis, and DISHFIRE for Short Message Service analysis;
- **Target Development** : Support to specific target development for virtually all product lines; and
- **Analytic Technique Development** : Recent successes have included PCS Short Message Service, advanced contact chaining, and mobile services exploitation.

(S//SI) These very visible services are only the tip of the iceberg. TDS supports SIGINT analysts with many services that are **virtually transparent** to those of you using the data and tools we enable. For example:

- **Number Normalization** : We take numbers from their varied intercepted formats and translate them to international numbering plan standard format, allowing homogenous global analysis of the call event metadata set;
- **Data Management** : We receive and analyze new data streams weekly, establishing preprocessing protocols and feeding the data into corporate databases like FASCIA, ASSOCIATION, and MAINWAY;
- **Driving Collection** : We drive and fund requirements for collection and processing systems like POPTOP, TUMBRIL, and OCTAVE;



SERIES:

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- Finding New Opportunities : We scour communications protocols to identify SIGINT toeholds for exploitation, such as tracking communications across prepaid network services; and
- Next Generation Automation : Working with NSA IT infrastructure leadership to stay on the cutting edge of technological advances enabling innovations in future tool development.

(TS//SI) The work of TDS leads directly to **intelligence results** .
For example,

- Pakistan/Terrorism : Detailed analysis of SS7 communications enabled the identification of key roaming chokepoints into and out of Pakistan through the GSM Mobilink network. These chokepoints had not been on cover prior to this discovery. When these points in the network were covered, they immediately began producing intelligence relating to the travel and calling activities relating to high priority terrorist targets.
- Bosnia/War Criminals : DISHFIRE, the SMS repository and retrieval/analysis tool, has proved to be the sole source for detailed information on the activities and whereabouts of several Bosnian war criminals and their compatriots. SMS, in fact, has led to the apprehension of some of those criminals.
- KSM Capture : The many tools built and maintained by TDS provide a better understanding of networks, numbering plans, and target identifiers. In the case of Khalil Sheik Muhammed (KSM), CT analysts knowledgeable about the benefits provided by these tools were able to identify the communications equipment used by KSM and then provide CIA with insights as to his location. These tip-offs were the first indication of KSM's presence in Karachi, Pakistan.
- Weapons of Mass Destruction : Analysts within the Office of Proliferation and Arms Control have used TDS tools and analytic expertise to pinpoint activities of dealers involved in buying and selling arms, propellant ingredients, and other items relating to WMD. In addition, they have used TDS tools for SIGINT Development successes in the areas of subscriber correlations and identification of new computer addresses.

(TS//SI) For more information about the intelligence successes resulting from the analysis and exploitation of SMS, go to the [PCS Working Group notes for 23 feb 2004](#) .

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